Edirol R-4 Pro

Four-channel location recorders are not the most common of devices, especially if you cannot justify top-end expenditure, but Edirol changed all that with the R-4. Despite its attractive price the R-4 had several shortcomings and with the new R-4 Pro Edirol has addressed the issues and produced a much more attractive proposition. ROB JAMES

THE ALL-PLASTIC cased R-4 Pro is around the same size as a Dan Brown hardback and a lot lighter without the eight AA cells installed, as is the earlier R-4. Look a little closer and the differences start to become apparent. The UK£1275 (+ VAT) R-4 Pro includes 2-channel AES-EBU I-O and SMPTE timecode. The analogue input electronics have also benefited considerably from a makeover.

The mains power supply is an in-line block with a conventional coaxial output lead. However, the R-4 Pro sports a four-pin XLR power input. This uses the industry-standard pin arrangement found on camera battery packs from manufacturers such as Anton-Bauer. A coaxial socket to XLR convertor cable is supplied to plug in to the recorder.

The Power switch carries dire warnings about not turning off during recording, playback or data transfer. Since the switch has to be pressed for five seconds before acting this is safe enough operationally. In any case it won't allow you to switch off when recording. However, I cannot help wondering why, since the machine obviously knows what mode it is in, does it allow the operator to do something as stupid as turning the power off when the machine is in any other condition likely to lead to data loss?

Recording is 16- or 24-bit on one to four channels at sampling rates up to 96kHz or stereo at 192kHz, onto the internal 80Gb 2.5-inch hard disk. File format is BWF/WAV. Each recording is termed a Project and can contain mono x 1, 2, 3 or 4 or stereo x 1 or 2 files or one 4-channel file. The familiar 2Gb limit applies. If a recording continues beyond this, it is split into two 'projects'. This occurs transparently to the user. Markers can be inserted during recording.

Unlike the R-4 there is no Compact Flash card slot. In compensation there are now two USB sockets (1.1 or 2.0). One is for communication and file transfers to a computer and the other can be used with an external USB hard drive for direct back-ups with no computer involved. Phantom power is switched in channel pairs. A Hold switch locks all controls in their current state apart from the knobs and mechanical switches.

System gets you into the main menus. Navigation is easy using the four Cursor/Monitor select keys with the scrub wheel and Enter/Finder and Exit keys. Four dedicated keys deal with Markers and two more enter Wave Edit and Effects modes.

The four analogue input channels are XLR. This is a downgrade from the R-4, which employs the more useful jack/XLR combi sockets with separate Mic/Line switches for each channel pair. This change has been made in a good cause because, on the sloping front panel the R-4 Pro has stepped analogue input sensitivity controls for each input at -56, -50, -44, -38, -32, -26, -20, -14, -8, -2, +4dBu and concentric continuously variable input level control. However, there is no way of determining accurately what value this variable input level is set to. The manual states that the centre position is 0dB (i.e. flat) but there is no detent and no on-screen indication of position. When the stepped controls are altered, the display changes momentarily to show their current value.

The limiter has been improved in so far as channels 1 and 2 and/or 3 and 4 can now be linked for stereo or all four channels when appropriate, preventing unwanted image shifts. The time-constants have been altered and limiter action improved. There is some confusion about the variable input control and limiter signal flow. The website says they are analogue, before the convertor, but the diagram in the manual says they are post convertor with the variable level post limiter, which would be about as much use as a chocolate teapot. A bit of playing with a signal generator reveals they are almost certainly analogue and the limiter is after the pot.

The practical upshot is that the analogue inputs are vastly improved over the R-4. Noise levels are subjectively reduced to the point where they are no longer an issue although I would still appreciate another 10dB of gain on the mic inputs. My AT 825 mic needed both coarse and fine gain flat out at normal speech levels.

Another improvement is the provision of four channels of analogue line out on phonos instead of the R-4's two. A further change sees a pair of XLRs for stereo AES-EBU I-O replacing the previous SPDIF I-O. All or any of the four channels can be mixed down to the stereo headphone output. Like its predecessor the R-4 Pro has two internal mics for note taking, for example, and two internal speakers for monitoring. Transport keys are clear and internally illuminated.

Editing remains basic, with Trim, Divide, Combine and Merge functions. Adequate for managing recordings, but too cumbersome for clever stuff. Scrub and shuttle are not great. Editing operations result in new audio files (projects) being written to disk and, even with the larger 80Gb internal drive, space may be at a premium. The built-in digital effects are unchanged i.e. they only work at 44.1kHz and 48kHz. Recording with effects is generally a bad idea and most users will transfer recordings for postproduction in any case.

The headline new feature is timecode support. R-4 Pro can record and play back standard LTC at all the usual frame rates. A generator is built in and External, Internal and Rec-Run modes are possible, as is jam sync to external source. Last but not least, the R-4 Pro can Chase external code. The only limitation here is that the project playing back must have the same timecode as the external input, meaning it is not possible to set an offset.

The R-4 Pro is a major advance over the R-4 whether you need the timecode or not. If you do, it is the only game in town at anything approaching this price point. It is now a thoroughly useable recorder for audio for video and anyone who needs to record more than two controlled channels on location. ■

PROS A lot better than R-4; easy to use; versatile.

CONS More gain needed on analogue inputs; no internal timecode offset possible when chasing; internal battery compartment feels fragile.

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